In the Claims:

I Claim:

1. An optical apparatus comprising:

a first bus having at least one subsystem module connected thereto, said at least one subsystem module having at least one optical device which is connected to a second bus of the same protocol as said first bus.

2. An optical apparatus as recited in claim 1, further comprising a host processor which is connected to a channel access table.

3. An optical apparatus as recited in claim 2, wherein said channel access table includes a plurality of individual channel addresses, corresponding physical addresses for each of said plurality of individual channel addresses, and a memory address offset for each of a plurality of individual channels.

4. An optical apparatus as recited in claim 1, wherein each of said at least one submodules further includes a microcontroller.

5. An optical apparatus as recited in claim 3, wherein said first bus is an address based shared bus interface.

6. An optical apparatus as recited in claim 5, wherein said host processor is connected to said address based shared bus interface.

7. An optical apparatus as recited in claim 5, wherein said address based shared bus interface is a serial interface.

8. An optical apparatus as recited in claim 1, wherein said second bus is an internal shared bus interface.

9. An optical apparatus as recited in claim 1, wherein said same protocol is chosen from the group consisting essentially of the I^2C protocol, the SPI protocol, the Ethernet protocol and the RS232 protocol.

10. An optical apparatus as recited in claim 2, wherein said host processor calculates a virtual access syntax which includes a channel address, a command, a memory address and data bytes.

11. An optical apparatus as recited in claim 3, wherein said host processor calculates a physical access syntax using said channel access table.

12. An optical apparatus as recited in claim 11, wherein said physical access syntax includes a physical address, a command, a memory address and offset, and data bytes.

13. An optical apparatus as recited in claim 1, wherein said at least one subsystem module further comprises a plurality of subsystem modules.

14. An optical apparatus as recited in claim 13, wherein at least one channel is connected to each of said plurality of subsystem modules.

15. An optical apparatus as recited in claim 1, wherein said at least one optical device is chosen from the group consisting essentially of transmitters, receivers, transceivers and transponders.

16. A method of accessing a plurality of optical devices, the method comprising:

translating a channel address to a physical access address with a memory offset.

17. A method as recited in claim 16, wherein said translating further comprises using a channel access table.

18. A method as recited in claim 16, wherein said channel address is used by a host processor to calculate a virtual access syntax.

19. A method as recited in claim 18, wherein said physical access address is used by said host processor to calculate a physical access syntax.

20. A method as recited in claim 19, wherein said host processor accesses a channel

access table to calculate said physical access syntax.

21. A method as recited in claim 1, wherein the plurality of optical devices are disposed in at least one submodule, and said submodule includes a bus which has a protocol that is the same as a protocol of another bus to which a host processor is attached.

22. A method as recited in claim 17, wherein said channel access table further comprises a plurality of individual channel addresses, corresponding physical addresses for each of said plurality of individual channel addresses, and a memory address offset for each of a plurality of individual channels.

23. A method as recited in claim 21, wherein each of said at least one submodules includes a microprocessor which communicates said physical access syntax to said plurality of optical devices.

24. A method as recited in claim 16, wherein a host processor performs said translating.

25. A method as recited in claim 16, wherein the accessing further comprises reading data from said plurality of optical devices.

26. A method as recited in claim 16, wherein the accessing further comprises writing data to said plurality of optical devices.

27. A method as recited in claim 16, wherein said plurality of optical devices are part of a wavelength division multiplexed communication system.